DOCUMENT RESUME

ED 142 395 SE 022 588

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TITLE Humanistic Education and the Biology Teacher.
PUB DATE 74
NOTE 16p.; Paper presented at the 1974 National Convention of the National Association of Biology Teachers

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Biology; *Educational Philosophy; *Humanistic Education; Humanization; Instruction; Science Education; Science Teachers; Student Needs; *Student Teacher Relationship; *Teacher Characteristics; Values

ABSTRACT

Humanistic education is concerned with teacher self-esteem and confidence and with teacher-student relationships. In this paper, the author attempts to identify those competencies for a biology teacher that can be considered humanistic, saleable skills for survival in the classroom. Ten characteristics of humanistic teachers are listed. Teachers, lay persons, administrators, and hiring personnel were asked to rank order five characteristics deemed necessary for a potential biology teacher. Humanistic attitudes toward students ranked first or second for all three groups. Next, the same groups were asked to interpret what is meant by humanistic teacher behavior. The results are given for all three groups. In the second part of the paper, the author lists survival competencies associated with humanistic teaching. These are grouped into three problem areas: personal, school, and community. In summation, the author stresses the point that competencies based on the learner need more attention today than those based on subject matter or teaching methods alone. A bibliography concludes the article. (MA)

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HUMANISTIC EDUCATION AND THE BIOLOGY TEACHER

by

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HUMANISTIC EDUCATION
AND THE BIOLOGY TEACHER

INTRODUCTION

Over the past several decades humanistic psychology has been telling us that the human is not basically evil, sinful, a beast to be tamed, but rather that, given a supportive, nurturing environment, the person would tend to develop naturally in ways which some consider "good". It may be simplistic, but one might characterize humanistic psychology as that school of thought which focuses on the development of "self," in Kierkegaard's words "to be that self which one truly is."

Humanistic education is a spinoff of this third force movement in psychology. It is perhaps more of a philosophy than a methodology. By this I mean a personal philosophy. For example, a person must be able to say I. Relationships with others can only be established through an awareness of I, through ability to accept I. It is only after the establishment of such relationships that the I is complete or consumated. It is only then that the person can look beyond the boundries of the I - such as in teaching humanely.

In my mind I find it somewhat contradictory to develop competency statements for humanistically oriented teacher education programs. There are several reasons for this conflict: 1) the notion that humanistic education is more of a state of mind than a state of the art mitigates against definitive statements; 2) since humanism focuses on the development of self, it is not a simple matter to develop generalized statements (this is not dissimilar from the difficulties of tying down the concept of creativity); and the final difficulty, 3) I may not have the depth of experience or understanding to do an adequate job.

However, I do think the task needs to be attempted, and I will exhibit my arrogance and audicity by trying in this paper to delineate the competencies for a teacher of biology which: 1) are generally accepted as being humanistic; 2) are closely related to saleable skills; and, 3) will assist the humanistically oriented individual to survive in the classroom/school arena.

GENERAL HUMANISTIC QUALITIES

The significance of humanistic education has been the focus of many publications. Not the least of these is the document Guidelines and Standards for the Education of Secondary School Teachers of Science and Mathematics published by the prestigious American Association for the Advancement of Science. The very first Guideline of the document states:

> 1. A teacher should show sensitivity to students.
>
> Sensitivity is a quality learned by interacting with others. It includes an ability to identify with others. This is not merely superficially "liking" students, but rather a personal involvement and a concern for their growth as human beings.
>
> 2. A teacher should have self-esteem and confidence.
>
> The ... teacher should have the opportunity to develop a self-concept of himself as a teacher of sciences ... growth ... will take place best if the teacher is aware of the competencies.

These broad statements can be more specifically delineated although they are still in terms that make judgements difficult if not impossible. As a result, such statements are criticized as useless. Nevertheless, I wish to put some forward for consideration. To use the proper format, the teacher of biology who is humanistically oriented will:

1. take student judgements and suggestions seriously;
2. make every effort to know his/her own needs and the influence they have upon his/her interpersonal relations;
3. attempt to be intellectually honest with himself/herself and students;
4. strive to determine his/her own strengthens and weaknesses, particularly as a teacher of biology, building on strengthens and working on weaknesses;
5. be able to foster an environment of trust with students and colleagues;
6. attempt to meet the various needs of students through a variety of techniques;
7. develop biology lessons which will foster the development of strong self-concepts in students;
8. understand that what you are speakes so loudly kids cannot hear what you say;
9. accept and encourage the widest possible range of interests and activities in students; and,
10. accept people where they are at, yet giving them opportunities to grow.

This short list is not intended to be all inclusive. For example, many competencies could be defined around Maslow's hierarchy of needs. The whole area of self-perception and self-acceptance could be more precisely defined. Such specificity is not necessary here and is dependent upon the purpose for which such lists are being utilized (i.e. teacher education, criteria for hiring, criteria for promotion, etc.). However, I believe that the above list does represent some of the competencies related to humanistic teaching.

HUMANISTIC EDUCATION AND THE ADMINISTRATION

It is of interest to note that humanistic qualities are not over-looked by hiring personnel — although it is difficult to determine to what extent

mere lipservice is afforded such qualities. In a recent series of interviews with administrators and hiring personnel, biology teachers and lay persons of the greater Bakersfield area, administrators and hiring personnel population ranked "humanistic attitude towards learning and students" more frequently than any other characteristic. The question in the interview was:

> If you had to rank in order the following characteristics for a potential biology teacher, in what order would you list them?
>
> a. more than a minimum expertise in biological content
> b. a broad knowledge of science
> c. pedagogical skills
> d. humanistic attitude towards learning and student
> e. an ability to cooperate with colleagues

The responses of the three populations (each with a sample size of 20) are given below.

Characteristic	Biology Teacher	Lay Persons	Administrators or Hiring Personnel
a	1	2	3
b	3	4	2
c	4	3	4
d	2	1	1
e	5	5	5

Such data may be questionable, but they do provide an indication of the external overall importance given humanistic qualities. Based upon answers to subsequent interview questions, it is apparent that "pedagogical skills" is ranked somewhat lower due to a conviction that these are best learned in the classroom.

In an effort to determine the interviewee's interpretation of item d, the following question was asked:

Describe a teacher behavior which is characteristic of a humanistic approach.

Sample responses to this item are given below. The responses were selected at random (the first response given on odd numbered interviewees' data sheet).

Biology Teachers

1. A deep concern for students, interested in student individuality.
2. Teacher should accept students for what they are (not cumulative folders).
3. A realization that the teacher has individuals rather than classes.
4. Openess in problems, has a sense of humor.
5. Doesn't push the student into a corner; give him every break but don't let him tramp on you.
6. Develop logical goals the students can achieve (base goals on students).
7. Know the students.
8. Do not set self on pedestal.
9. Head-on with students (spend outside time with students).
10. Be open with students.

Lay Persons

1. A teacher should get to know and understand his/her students.
2. Don't know what you are talking about!
3. Tolerance - stuff being taught isn't always that important!
4. Try to relate to kids at their level.
5. Ability to hold students' interest and make sure they understand material.
6. Genuinely interested in student's needs.
7. Discern, incorporate and facilitate the students individual needs.

8. Relate to students on an individual basis.

9. Learning student's name.

10. Confidence in students - do not make students feel inferior.

Administrators and Hiring Personnel

1. Creates learning environments based on his/her ability to cause each student to realize that each is the most important to the teacher, more so than subject matter.

2. Teacher will give personal time above and beyond regular class time to students.

3. Consider each student as an individual taking into account the variation of the students in ability and even day-to-day performance.

4. Empathy - being concerned about others.

5. Interested in seeing total growth of students - not only in biology - sees student outside of class.

6. Pays attention to individual students as people without total emphasis on subject.

7. Working with and responding to individual students - emphasis on interaction as opposed to teaching.

8. Sincere and interested - helps students improve self-concept.

9. Able to work with every student in school.

10. Ability to offer students options in approach, content, time, etc.

I believe that these data demonstrate that all populations are concerned about the humanistic qualities of a teacher. In general, the term was meaningful and when ranked in the order of priority the individuals had specific qualities in mind. It would appear that when seeking a teaching position the candidate should provide some indication of where he stands concerning humanistic education. Of course, it would be best if his professional papers provided such information but if in doubt he/she should definitely make reference to such qualities in the interview or letter of application.

SURVIVAL COMPETENCIES ASSOCIATED WITH HUMANISTIC TEACHING

To approach the teaching of biology in a humanistic manner is to invite trouble! Such a statement may at first appear to be unwarrented, for to many, humanism is the ultimate, the goal, of many professionals. At first it appears to be apple pie, motherhood (I apologize to those who would prefer the term personhood), and the flag all wrapped into one teaching philosophy. There are a multiude of day-to-day activities which minimize the probability of successfully approaching teaching in a humanistic mode. The teacher of biology must be prepared to deal with them. I have arbitrarily classified such problems or forces into three categories: personal, school, and community.

Personal

This area is perhaps the most difficult with which to deal. It is threatening for a teacher with 10+ years of experience to begin questioning the validity of his/her approach to the teaching of biology. The neophyte teacher is in an equally vulnerable position not having had the wealth of experience upon which to base decisions nor the opportunity to develop a strong self-concept as a teacher. There are a host of reasons why teachers do what they do. Many have never considered the barriers, parameters, or forces which are a function of their own self-concept. Related to these factors, the teacher of biology should:

1. attempt to trust other people, a first step to the establishment of a trusting classroom environment;
2. establish the extent to which he/she needs to be an authority figure;

3. identify the extent to which his/her behavior is influenced by peer pressure;

4. develop a concern for science as a whole rather than only biology;

5. be aware of the need for patience and flexibility in a humanistic approach to teaching;

6. be able to maintain an optimistic outlook; there will be many setbacks that will be taken personally;

7. accept the concept that there may not be correct answers to many problems; and,

8. when troubled by a youngster's behavior, look into his/her own feelings.

No doubt many more such statements could be developed that reflect personal components with which the individual must deal. However, a large number of anticipated problems are related to intrapersonal situations and administrative structures within a given school. Although each school is unique there are still many similarities and bases of commonality. For example, student evaluation procedures can be a real barrier to the teacher who wishes to develop high-trust relationships with students. As long as a fairly rigid grading procedure is required by the school, trust of the teacher by the student is always contingent upon the significance attributed to a grade by the student. Therefore, the teacher must be aware of alternative or modified grading procedures which facilitate trust. Other related skills or competencies include:

1. the ability to deviate from a linear curriculum in response to student or personal needs;

2. the ability to give alternative approaches to teaching (i.e. unified science, an interdisciplinary approach, team teaching) a fair and accepting try;

3. the willingness and patience to work with colleagues who may be preceived as antagonists or critics such as those who are concerned about:

a. academic rigor,
b. giving or not giving students responsibility,
c. noise, disorder, movement,
d. their own authority hang-up,
e. grades,
f. the quality of biology being taught.
g. the possibility students may like your class more than his/hers, or
h. how parents and upper administration will respond to such a laissez-faire approach to education;

4. being able to provide a clear rationale or justification for whatever it is that is being done;

5. the ability to provide a learning environment in which students preceive a structure;

6. the development of a system for handling counseling problems - as students become increasingly trusting they approach the humanistic teacher with ever more complex personal problems; and,

7. the humility not to become an apostle of humanism to the point of forever preaching the virtues of educational reform.

Even the most honorable person is at times threatened by the new, the different, or situations that are not easily understood. Humanistic education, with its focus on trust and the personal goodness of the individual, runs into obvious conflict with those whom have been inculcated with a belief such as "man is basically sinful," and the associated ramifications and permutations. Subtle, overt and covert pressures are exerted to maintain a comfortable static environment.

Beyond the walls of the school lies the community. However, the constraints of the community are real. Values put forth in the classroom are not necessarily the values by which the student lives. Parental and family influences might be counter to those of the teacher. For example, to many parents, the purpose of getting an education is to learn a skill and to

get a better job rather than such useless, half-baked, nonsensical folly as finding out "who I am." In such cases, parent vs. teacher, teacher vs. student, or student vs. parent situations could easily develop. To this end, teachers of biology who are humanistically oriented will:

1. identify the prevalent values in the community serviced by the school;
2. provide a learning environment which allows students to hold alternative values particularly when educational values come in conflict with parental or community values;
3. recognizes that the biology classroom is a temporary system which involves the student only a small fraction of his/her educational experience;
4. provides the student with information and support to modify his/her value systems (should the student desire);
5. helps the student to understand the purpose of humanism so that he/she may discuss it with members of the community or even other students.

The short list of competencies given above may seem ridiculously obvious to some. However, I don't believe the data support the notion that biological education necessarily reflects the needs of community or that the biology teacher is even cognizant of the values within a given community. For example, the conflict between evolution and creationism carries many overtones. The valuing aspect is critical. For example, in the same survey described in a previous section the following question was asked:

> To what extent is a conflict between creationism and the theory of evolution an issue in the teaching of biology? Why?

In general, the administrators suggested that there used to be a problem but not any more. Their social barometer was the number of times parents came to them. Thirteen of the biology teachers suggested there was a conflict as long as the teacher did not "explain both sides impartially!"

(If we are not careful topics such as this may foster a 1984 "double think" system.) It is of interest to note that not one single educator (teacher or administrator) referred to creationism as a theory. Those that advocated dealing with creationism in some way usually made some reference to the values of the community or the potential conflict for the individual student.

The interviews with the lay persons yielded data which do support the notion that community values are different from academic values. Seventeen individuals felt that both "theories" should be taught. (The three persons who felt there was no conflict all worked in science-related fields.) Many expressed a feeling that teachers go out of their way to stress and work with evolutionary concepts to the point of raising conflicts in the minds of students. One individual commented, "It isn't fair to give only one theory."

The point here is not the resolution of problems related to teaching evolutionary biology. The issue is raised as a prime case of conflict between the values of the community in which a student lives and the information being put forth in a one-hour per day biology class. It is one thing to help the student deal with such conflicts, it is another to instigate the conflict for some unknown, crusading, or non-humane reason.

The teacher of biology must recognize the fact that the classroom is a temporary system. If what goes on in it is to have any effect, what is learned must be accommodated by the students.

SUMMARY

I guess what I am advocating is that some attention must be given to competencies that are based on the learner rather than the subject matter or technique of teaching. I have sometimes heard the comment that if our goal as teachers is to develop the person we could end up with a population of

happy self-actualizing ignoramuses. I don't think this is possible (and even if it did I'm not certain its bad). People always study those things that matter to them. People have always learned about things that have mattered to them. The great arists, scientists, historians, and mathematicians do doubt became great not because of well-organized curriculum, or a teacher who used an inquiry approach, but because they loved their respective areas.

The humanistically oriented biology teacher is aware of the fact that the essence of education is enjoying the freedom of being yourself after first finding out who you are. Perhaps if education employs aspects of humanism in its process - with students being given freedom, being trusted, given personal responsibility and accorded respect - products of such a process may do the same for others. Perhaps students will be able to handle their own freedom and personal affairs better. Perhaps they won't. The problem is that we don't know. We really have not tried. Perhaps we can't.

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General references and citations have not been used in this paper. The thoughts presented here are not necessarily original. Perhaps the only claim to originality is the organization. What follows is a brief list of some sources which may be of interest to the reader.

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